



Overview of Forms and Instructions for Environmental Performance Report

Prepared in Support of the 2005 Integrated Energy Policy
Report Update Proceeding (04-IEP-01)

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Background

- The *Environmental Performance Report* (EPR) is one of the critical inputs to the *Energy Report* in that it systematically assesses the environmental effects of California's power generation and transmission system at a state-wide scale.
- The EPR systematically examines the environmental attributes and effects of all sectors of California's nearly 60,000 megawatt (MW) power generation fleet
- As stated in the 2003 *Environmental Performance Report*: "Lack of environmental data hinders the Energy Commission's ability to report fully on the environmental performance and trends of the state's electrical generation and transmission system."



Actions Taken to Date

- Staff reviewed the datasets that were used in the 2001 and 2003 EPRs
- Staff consulted with agencies on the availability of additional or better data
- Staff investigated new databases
- The questions that remained unanswered are being requested in the “Forms and Instructions” document we are presenting today
- Convened a workshop to request your comments



Summary of Form 1001

Power Plant Identification and Physical Location

How will data from these requests be used?

- To create more accurate maps of actual locations of power plants
- To correct inconsistencies that exist between databases
- To create a “translation” or “crossover” datasheet that links our data to federal data collection



Summary of Form 1002

Hazardous Air Pollutant Emission Factors

How will data from these requests be used?

- To complete regional analysis of the hazardous pollutant emissions

What these requests are NOT

- This form is not intended to replace facility submittals to the Air Toxics “Hot Spot” reporting



Summary of Forms 1003 and 1004

Criteria and Non-criteria Emission Factors

How will data from these requests be used?

- To complete regional analysis of the criteria and non-criteria pollutant emissions

What if my facility doesn't have this data?

- Staff assumes that a majority of facilities have performed a source test as required by the Air District, or have a CEMS, but if you do not have either, we will use the USEPA Agency Publication AP-42



Summary of Form 1003 (continued)

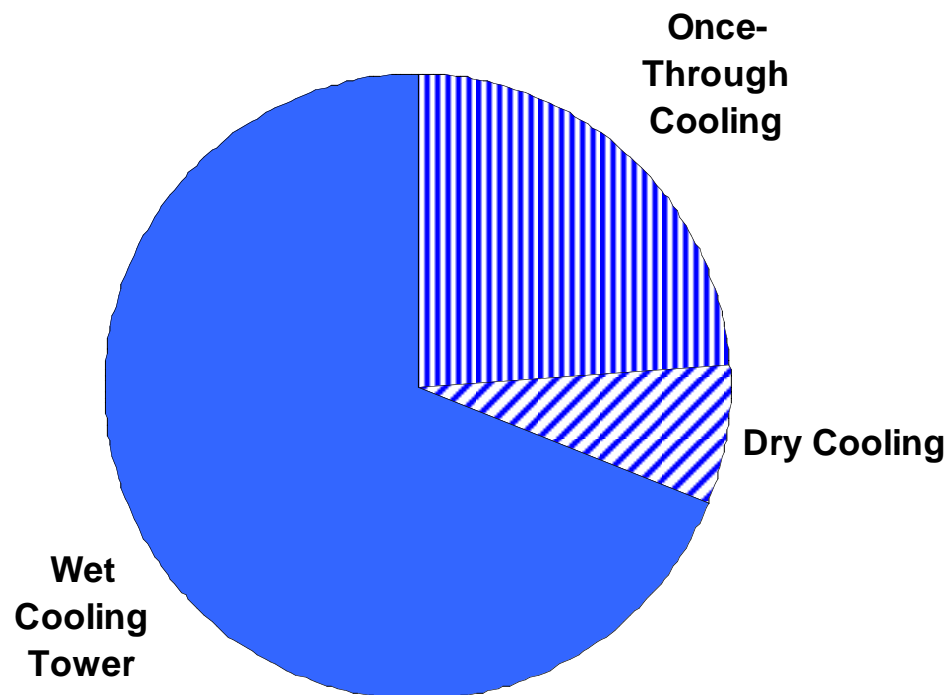
What about green house gas emissions?

- A large amount of information exists to draw from regarding CO₂ emissions from combustion power generation facilities
- California Climate Action Registry participants will soon be supplying their direct emissions, fugitive emissions, and indirect emissions following a well-reviewed protocol
- Reporting Requirements for the Registry
 - CO₂ for the first 3 years
 - All 6 gases found in the 1997 Kyoto Protocol after 3 years



Summary of Form 1005

Power Plant Cooling Technology



How will data from these requests be used?

To monitor trends in cooling technology over time and regions



Summary of Form 1006

Monthly Volumes of Water Use

How will data from these requests be used?

- To monitor trends in in water use and how energy-related water use compares with statewide water demand
- Staff will use this data in conjunction with the Dept. of Water Resources Bulletin 160 which is published every 5 years and the electrical generation data collected here at the Energy Commission
- Staff will use data to assemble a more comprehensive profile of water consumed by energy users



Summary of Form 1007

Classification of Wastewater Discharge Method and Quantity Discharged

How will data from these requests be used?

- To monitor trends in wastewater disposal methods at energy facilities for correlations with water conservation and water quality issues
- Staff will use this data in conjunction with the electrical generation data collected here at the Energy Commission



Form 1007 (continued)

“Increasing company pressures to reduce treatment costs, increasing community pressures to minimize water use and find alternate water sources, and increasing regulatory pressures to enhance water discharge quality all conspire to make more complex what was already complex. “

“Among the many strategies developed in response to these challenges are the use of recycled, ‘gray’ water, zero-liquid discharge programs, and the use of enhanced de-mineralizer systems to reduce chemical consumption costs.”

Power Engineering, January 2003



Summary of Form 1008

Hydroelectric Project and Powerhouse Information

How will data from these requests be used?

- To provide information on the locations and basic hydrology of California's hydroelectric system
- Staff intends to incorporate additional information on environmental attributes over time



Summary of Form 1009

Socioeconomic Benefits of Power Plants

How will data from these requests be used?

- To enable staff to show economic benefits (and potential economic loss) from the operation or closure of electric generation facility types in all sectors



What other Data Forms were Considered?

- Thermal energy from co-generation plants will come from the new federal form (EIA 920)
- Wind turbine data will be collected from the Wind Project Performance Reporting System which is now internet-enabled
- Once-through cooling information will be collected from bi-annual surveys of coastal Regional Boards



Staff Participants

- Matt Layton, Mike Ringer, and Joe Loyer
- Pierre duVair and Gerry Bemis
- Dick Anderson and Lorraine White
- Jim McKinney, Stuart Itoga, and Joe O'Hagan
- Natasha Nelson, Rick York and Melinda Dorin
- Dale Edwards and Joe Diamond
- George Simons, Todd Lieberg and Drake Johnson



Comments and Questions

